

Carretera Catia - El Junquito," Venezuela, October 8, 1943, by Francisco Tamayo, no. 2564.

A duplicate of the type is in the herbarium of the Instituto de Botánica, Caracas, Venezuela.

*Ichnanthus nubilis* Chase

Fig. 3

Planta annua; culmi ramosi decumbentes, 60-100 cm longi, graciles, angulati, infra nodos papillo-lis-pilosi; nodi pilosi; vaginae papillosae-pilosa; internodii 1.2-2.5 cm longi, papillosi-pilosi, ciliati; ligula brevissima; laminae anguste lanceolatae, 5-10 cm. longae, 4-8 mm latae, acuminatae, basi constrictae, tenues, infra obscure reticulatae; paniculae terminales et axillares, pedunculis gracillimis longissimis; paniculis 2.5-3.5 cm longis, 5-10 mm latis, 2-6 spiculae ferentibus; spiculae 3.5 mm longae, glumis et lemmate sterili firmis; gluma prima acuminata 2/3-3/4 spiculae aequans, 5-nervis; gluma secunda 3.5 mm longa, subacuta, 5-nervis; lemma sterile 5-nerve, quam gluma secunda brevis; fructus 2.5 mm longus, basi appendicibus nullis.

Plants annual; culms decumbent, 60 to 100 cm long, slender, strongly nerved to angled, papillose-pilose below the nodes and sometimes along one of the nerves; nodes pilose; sheaths much shorter than the internodes (mostly less than 2.5 cm long), finely papillose-pilose, at least

toward the summit and on the collar, finely ciliate; ligule minute; blades narrowly lanceolate, 5-10 cm long, 4-8 mm wide, acuminate, narrowed at base, thin, faintly reticulate on the lower surface, and sparsely pilose to glabrous on both surfaces; panicles terminal and axillary on long very slender angled peduncles, the panicles 2.5-3.5 cm long, 5-10 mm wide, the short ascending scabrous branches bearing 2-6 short-pedicelled spikelets; spikelets 3.5 mm long, the glumes and sterile lemma firm; first glume abruptly acuminate, 2/3-3/4 as long as the spikelet, 5-nerved, the midnerve scaberulous toward the apex; second glume 3.5 mm long, subacute, 5-nerved; sterile lemma similar to the second glume, slightly shorter, 5-nerved; fruit 2.5 mm long, the basal wings reduced to scars.

Type in the U. S. National Herbarium, no. 1762167, collected near the upper margin of cloud forest, El Junquito, Cordillera Costanera, Distrito Federal, Venezuela, March 12, 1940, by Agnes Chase, no. 12439.

A duplicate of the type is in the herbarium of the Instituto de Botánica, Caracas, Venezuela.

*Ichnanthus tamayonis* and *I. nubilis*, creeping, shade-loving species, resemble *I. angustifolius* Swallen of the Eastern Cordillera of Colombia, but are freely branching and bear axillary as well as terminal panicles with spikelets glabrous or with scabrous nerves only.

ENTOMOLOGY.—Notes on *Bruchidae* affecting the *Anacardiaceae*, including the description of a new genus. JOHN COLBURN BRIDWELL, Lignum, Va. (Communicated by Waldo L. Schmitt.)

Anyone interested in the *Bruchidae* is intrigued by the relatively few species that diverge from the usual family habit of feeding their young in seeds of legumes by attaching themselves to plants of other families. We have three records of *Bruchidae* affecting the *Anacardiaceae*, a family of plants represented in temperate North America almost entirely by the polymorphic genus *Rhus*, including the sumacs, poison ivy, and smokebush. The genera affected by *Bruchidae* are Chilean and Brazilian, and both are close allies of *Rhus*. These genera are *Duvaia* Kunth, now usually included in *Schinus* Linnaeus, which includes the "California" peppertree, and *Lithraea* Miers, which includes the Chilean litre, *L. caustica* (Molina) Hooker & Arnott (*venenosa* Miers).

1. GALL-MAKING BRUCHID OF *Schinus huigan* (CHILE)

Kieffer and Herbst (*Zeitschr. Wiss. Insekt.-Biol.* 1: 66. 1905) reported a bud gall in the axils of the flowering twigs of *Duvaia dependens* DC (= *Schinus huigan* Molina), which is described as follows: These are easily dislodged, being attached at only a single point. The gall is ellipsoidal, 6-8 mm high by 5-6 mm broad, naked, red flecked with white, the middle of the flecks sometimes tuberculately prominent. The texture of the gall is somewhat woody. Within the gall lies a thick curved footless beetle larva with the body gradually thickened behind, 8-9 mm long by 2-3 mm broad, naked except for some scattered hairs on the anterior segments, mandibles dark.

This material was obtained by Pablo Herbst between Santiago and Valparaiso on November

3, and later a new species of *Bruchus* was reared from these larvae.

Since this still undescribed species is one of the few Bruchidae affecting plants in parts other than seeds, it would be a useful work for some of our Chilean friends to recover this species and have it described.

## 2. *Lithraeus electus* FROM THE SEEDS OF LITRE (CHILE)

Prof. Carlos Porter (Revista Chilena Hist. Nat. 29: 286. 1925) reported determining the attractive *Bruchus elegans* Blanchard in material submitted to him for identification by Prof. Flaminio Ruiz, obtained by the latter from the seeds of litre, *Lithraea caustica*, from Sauzal (Province of O'Higgins) in January 1924. Since Camacho (*Algunos insectos perjudiciales a las arvejas, frijoles, lentejas y otras legumbres y brucos del trebol*, Serv. Policia Sanit. Vej., Santiago de Chile, 1919: 22-23) had previously erroneously reported this species affecting seeds of clover, I sought confirmation for Professor Porter's record. With this in mind I examined several lots of seeds of litre in the collection of the Office of Foreign Plant Introduction, U. S. Department of Agriculture. In one of these lots (S.P.I. No. 27434) were found four seeds showing insect injury. Three exhibited exit holes, evidently of some hymenopterous insect smaller than *Bruchus elegans*. This should be a parasite of a bruchid, but it might also be some seed inhabiting chalcid. Fortunately, the fourth seed still contained an insect. When this was extracted from within its slight silken cocoon, there was found a nearly mature braconid identified by C. F. W. Muesebeck as a species of *Urosigalphus*. Since some of the species of *Urosigalphus* parasitize bruchids, and others attack curculionids, the remains of the beetle larva at the expense of which the *Urosigalphus* larva had nourished itself were extracted and submitted to Dr. Adam Böving. The fragments were sufficient to enable him to determine them positively as those of a bruchid larva. We may hope that ultimately the larvae of Bruchidae will be identifiable, since Dr. Böving has admirably worked out the mouth parts (Proc. Ent. Soc. Washington 29: 133-143. 1927). However, the larva of *Bruchus elegans* is still undescribed, and so no matter how perfect the larva might be it would still be impossible to determine it to species. We were not, therefore, quite able to confirm fully Professor Porter's record as to the species concerned. But a bruchid

certainly does affect the seeds of *Lithraea caustica* in Chile, and I have no doubt that he is right in his determination, for *Bruchus elegans* is a common, well-known, and strongly characterized species not likely to be mistaken.<sup>1</sup>

Unfortunately, the appropriate specific name *elegans* Blanchard, 1851, is preoccupied by *Bruchus elegans* Sturm, 1845, a valid binomial, and must be replaced. Furthermore, the varietal name *obscurior* Pic, 1902, is also preoccupied<sup>2</sup> and cannot take its place. The species is, I believe, distinct enough to represent a separate genus, and *Lithraeus* is proposed with *Bruchus elegans* Blanchard, 1851, as genotype. For the untenable specific name *elegans* the substitute *electus* is proposed, so that this beautiful seed weevil of the litre may be known hereafter as *Lithraeus electus*.

**Lithraeus**, n. gen. (Bruchinae, Acanthoscelidini)

Genotype: *Lithraeus electus*, n. name

*Bruchus elegans* Blanchard, 1851, not Sturm 1843.  
*Bruchus elegans obscurior* Pic, 1902, not *Bruchus (Pseudoptinus) martini obscurior* Pic, 1896.

Freshly emerged individuals of this elegant Chilean bruchid may best be recognized by the pubescent markings, which later are often badly rubbed. With fine sericeous pubescence on head, body and legs above and below, invisible except when seen obliquely; sharply defined decorations of dense snowy white pubescence concealing the surface thus: a small quadrangle on median lobe of pronotum; on the small quadrate scutellum (emarginately bidentate at apex), narrow arcuate elytral fasciae extending obliquely forward from near the middle of fourth stria to near basal third of ninth, an elliptical fleck at the apex of the fourth and fifth striae, on mesepimeron, on narrow outer margin of metapleura, on outer end of hind coxa and small maculae on extreme margin of sternites 2-4, narrow basal margin of pygidium; less condensed and less definite pubescent markings on posterolateral lobes or angles of pronotum and on its flank near front coxa.

Small, 2.3-3.1 mm long by 1.3-1.6 mm broad, ovate, shining black or reddish testaceous, with almost all parts rufescent in some individuals;

<sup>1</sup> Since this part of this paper was prepared, repeated positive proof of this host relationship has been obtained. I do not have any confirmation of Dr. Porter's subsequent record (Revista Chilena Hist. Nat. 43: 139-140. 1940) of its affecting *Schinus molle* L., the so-called "California" peppertree.

<sup>2</sup> *Bruchus (Pseudoptinus) martini obscurior* Pic, 1896, now referred to *Ptinus*.

head, prothorax, and body beneath generally black; antennae sometimes entirely black, sometimes with some basal joints reddish. Integument everywhere micropunctulate, with coarser punctures on head, pronotum, and hind coxa. Head short, malar space short, temples abruptly declivous; eyes normally convex and projecting, broadly emarginate for two-thirds their length, separated on front by nearly the width of an eye.

Front punctured throughout, without a carina, glabrous impunctate line, or area; antennae alike in the sexes, extending beyond base of pronotum but not to hind coxa, with four narrow joints at base, joint 5 triangularly expanded at apex, 6-10 nearly alike, subquadrate, closely applied to each other, not at all serrate, 11 broadly ovate. Pronotum narrower than elytra and less than half as long; sides nearly straight, converging and suddenly rounded in front; dorsum nearly even, convex, separated from flanks by a vestigial lateral carina bent down to the coxa. Elytra with even surface, flat intervals, epipleural lobes well developed, humeri small, no basal tubercles, striae except 8 and 9 reaching base, 4 and 5 abbreviate and joined at apex, striae perceptibly punctured, well impressed; elytra broadest near basal third, narrowed to apex, covering base of pygidium, not microserrate at suture. Hind coxa broader than hind femur and broader than first sternite behind it, finely punctured except for the polished area along more than half the anterior margin; hind femur more than three times as long as broad, not extending to apex of abdomen, arcuate above, nearly straight beneath, sinuate before the small apical lamella; slightly flattened apically, inner margin with vestigial carina usually bearing a slightly angulate denticle; hind tibia straight, slightly broader toward apex, entirely without longitudinal carinae, apex abruptly truncate, mucro short and but little different from the lateral tooth which is near it, separated by a shallow sinus; subdorsal denticles smaller, two or three in number.

Numerous American Bruchidae such as *Bruchus* (*Pachymerus*) *albotectus* Sharp, *Bruchus* (*Pachymerus*) *incrustatus* Gyllenhal, and *Pseudopachymerus multimaculatus* and *binotatus* Pic, which have been referred to *Pseudopachymerus* or *Caryedes*, from which they are generically distinct, have the elytra with dense white pubescence over most of the surface but in *Lithraeus electus* most of the elytron is covered with practically invisible pubescence and the white covers

only a minor part of the surface. These species with longitudinally carinate hind tibiae and femur armed with tooth and denticles near apex beneath are widely separated from *Lithraeus* by the structure of the hind legs. Most genera of Acanthoscelidini have longitudinal carinae on the hind tibiae: (1) One on outer face ending in a tooth at apex. (2) One on ventral margin ending in the mucro at apex; (3) One on the surface between outer and ventral carinae, often converging apically toward the ventral carina; (4) One on the inner face, not related to any apical structure. The complete absence of such carinae in *Lithraeus* distinguishes it from any other American bruchid genus known to me.

### 3. A BRUCHID FROM THE SEEDS OF AROEIRA (BRAZIL)

Gregorio Bondar, 1937, records a third bruchid affecting a plant of the family Anacardiaceae in Brazil (Rio) in his *Notas biológicas sobre bruchídeos observados no Brasil* (Arch. Inst. Biol. Vegetal 3: 7-44, figs. 1-61 [December, 1936]), a work largely reprinted from previously published papers in *Correio Agrícola* (Bahia), *O Campo* (Rio de Janeiro), *Revista de Entomologia* (Rio de Janeiro), and perhaps elsewhere, 1930-1932, the details of which I cannot here quote. This paper by Bondar is the most significant single contribution to the biology of Bruchidae known to me. Bondar's too brief note (p. 43) reads thus: "*Bruchus atronotatus* Pic. Cria-se em sementes de aroeira. Rio."

The bruchid species was described by Pic 1929, *Mélanges* 54: 35, Brésil (type in coll. Pic). It was listed by Blackwelder, *Checklist of the coleopterous insects of Mexico, Central America, the West Indies, and South America*, U. S. Nat. Mus. Bull. 185 (pt. 4): 758. 1946, as *Acanthoscelides atronotatus* Pic. I do not have the description before me, but I doubt if it would be of service in determining the species if it is in any way like *Lithraeus electus* or particularly related to it.

From Dr. Da Costa Lima's very useful "Índice das Plantas" in his *Terceiro catalogo dos insectos que vivem nas plantas do Brasil*, Rio de Janeiro, 1936, p. 426, we find the vernacular name *aroeira* with or without an adjective, *brava*, *mansa*, or *preta*, applies to *Lithraea brasiliensis*. *Aroeira vermelha* or *manza* is *Schinus terebinthifolius*. My impression is that Bondar meant *Lithraea brasiliensis* as the host of *Bruchus atronotatus*.